Neurocognitive Assessment Tool (NCAT) Information Sheet

The Department of Defense is taking another step forward in the charge to better screen for, diagnose and treat mild traumatic brain injury (TBI).

DoD requires pre-deployment Neurocognitive Assessment Tools (NCAT) for all Service members prior to their next deployment. NCATs measure cognitive performance areas most likely affected by mild TBI, including attention, judgment, memory and thinking ability. Individual results will serve as a baseline in monitoring for changes in a Service member's cognitive function. Ultimately, the goal is to have the capability to compare assessment results before and after a Service member is subject to a blast event, in order to improve the accuracy of mild TBI screening and proper treatment of Service members.

"Following a concussion or mild TBI, Service members are evaluated for physical findings, reported symptoms and alterations in cognition. In most cases, individuals recover from the effects of concussion or mild TBI," said Robert L. Kane, Ph.D., ABPP-Cn, Director of the NCAT Program. "However, physical signs, symptoms and cognition may not recover at the same rate. The Automated Neuropsychological Assessment Metrics provide an additional tool to assess cognitive changes following concussion or mild TBI and to assess improvement."

NCATs are important because Service members involved in a blast may have no visible external injuries and the symptoms of mild TBI can go unnoticed. These symptoms may include slower reaction time, headaches, irritability, memory impairments and sleep difficulty.

The Automated Neuropsychological Assessment Metrics (ANAM) is the specific type of NCAT that Service members will complete. It is a simple 15 to 20 minute computerized test that records a Service member's cognitive performance. The Army began developing the ANAM in 1984. It was evaluated and refined for a number of uses over the last two decades, most notably for pilot initiatives involving the 101st Airborne Division.

"ANAM contributes to the general assessment of the effects of concussion or mild TBI and to monitoring the course of recovery," Kane said. "It is a tool that helps in the determination of appropriate follow-up care and readiness to return to duty."

The ANAM on its own is not a diagnostic tool. It does not measure intelligence or computer skills. The changes in cognitive function revealed by reassessment will trigger a more indepth evaluation by a medical provider. Preliminary data from pre-deployment cognitive assessments has shown the number of these kinds of referrals to be very low.

ANAM results will be a part of Service members' medical records. This data will be treated as protected personal health information and kept confidential using encryption technology.

Automated Neuropsychological Assesment Metrics FAQ

What is the Automated Neuropsychological Assessment Metrics (ANAM) test?
What does it measure? The ANAM is a computerized neurological assessment that measures memory, reaction time and information processing. It takes about 15 to 20 minutes to complete. On its own, it does not diagnose Traumatic Brain Injury (TBI). It can only trigger a more in-depth evaluation by a medical provider.

Who gets it and when?
All Service members will take the ANAM within 12 months before deployment.

Specifically, what does it measure? Is it an IQ test?
The ANAM is not an IQ test. It measures the cognitive performance areas most likely affected by mild TBI. These include simple reaction time, procedural reaction time and learning, as well as delayed, working and spatial memory.

How does a pre-deployment "baseline" benefit Service members?
Comparing a Service member's baseline with a post-blast assessment will give medical providers important information about how to proceed in testing, diagnosing and treating TBI, even in its mildest form.

Does it help Service members who already have a head injury?
A baseline ANAM can be given at any time. The purpose of ANAM is to capture a snapshot of a Service member's present neurocognitive status. Repeat ANAM assessments can be compared to earlier data to help determine if a Service member's neurocognitive status has changed.

Who has access to ANAM data? Is it included in a Service member's permanent medical record? Is it protected health information?
ANAM data will be included in the medical records of Service members. It will be treated as protected personal health information and will be kept confidential using encryption technology. ANAM data is available to the ANAM administrators and to medical providers, who will interpret the reports with Service members if needed.

What if I'm not very good with computers?
Computer ability does not affect your ANAM results. ANAM records neurocognitive function, not computer skills.

If a Service member screens positive for a mild TBI before deploying, what happens? Is this a go/no-go station? If a Service member screens positive for mild TBI before deploying AND has symptoms, he/she will be referred to a provider for further evaluation. If a Service member scores low on their cognitive performance testing prior to deployment, then he/she, too, will be referred for further evaluation. Preliminary data from pre-deployment cognitive testing done by the Army has shown these numbers to be very low. In the event that a Service member is referred for further evaluation, it is unlikely that this will alter deployment status.